REMARKS/ARGUMENTS

Request for Continued Examination:

The applicant respectfully requests continued examination of the above-indicated application as per 37 CFR 1.114.

Claims 1-3 and 19-22 are rejected under 35 USC 103a as being unpatentable over Joch et al. (US 7,227,901).

The applicant firstly points out that Examiner appears to have mistakenly rejected claims 1-3 and 19-22 using 35 USC 103a. The reason is that the Examiner asserts that Joch et al anticipate each and every claim limitation of claims 1-3 and 19-22. For this reason, the applicant believes the rejection of claims 1-3 and 19-22 should have been made under 35 USC 102.

Secondly, the applicant has amended independent claim 1 to include the following feature:

> "when filtering the pixels not adjacent to the pixels at the block boundary, there is at least one pixel left unfiltered between the pixels around the block boundary and the pixels not adjacent to the pixels at the block boundary"

No new matter is entered. For example, please refer to Figure 23 showing first filtering the pixels at the block boundary (V_7 and V_8) after step 2200; and next filtering pixels not adjacent to the pixels at the block boundary (V_4 and V_5) after step 2202. Wherein, when filtering the pixels not adjacent to the pixels at the block boundary (V_4 and V_5), there is at least one pixel left unfiltered (V_6) between the pixels around the block

boundary (V_7 and V_8) and the pixels not adjacent to the pixels at the block boundary (V_4 and V_5). More examples of leaving at least one pixel unfiltered between the pixels around the block boundary and the pixels not adjacent to the pixels at the block boundary are also shown in Figure 25 and Figure 27 of the present invention as well.

Also, please refer to paragraph [0123] stating, "It should be noted that the filtering order for Category 2 filtering operations is not sequential from pixels at the block boundary 600 to pixels furthest away from the block boundary. Instead, after filtering the pixels at the block boundary 600, pixels further away from the block boundary 600 are filtered. Afterwards, pixels between the pixels at the block boundary 600 and the pixels further away from the block boundary 600 are filtered." (emphasis added) In this way, it is clear that there is at least one pixel is left unfiltered between the pixels at the block boundary 600 and the pixels further away from the block boundary 600. The present invention also clearly explains the advantage of filtering in this way, stating in the same paragraph, "By doing so, the error caused by filtering the pixels at the block boundary 600 is not propagated to inner-block pixels further away from the block boundary 600."

As currently amended claim 1 specifically claims "when filtering the pixels not adjacent to the pixels at the block boundary, there is at least one pixel left unfiltered between the pixels around the block boundary and the pixels not adjacent to the pixels at the block boundary", and because the advantage of performing filtering in this way is clearly explained in the specification (i.e., not propagating error from the block boundary to inner-block pixels), the applicant respectfully asserts that this feature should be given patentable weight.

As will be explained in the following paragraphs, the applicant asserts that Joch et al.

do not teach or suggest, "when filtering the pixels not adjacent to the pixels at the block boundary, there is at least one pixel left unfiltered between the pixels around the block boundary and the pixels not adjacent to the pixels at the block boundary", as is claimed in currently amended claim 1.

Firstly, in the advisory action of 04/22/2008, the Examiner stated, "It is submitted that Joch teach first filtering the pixels at the block boundary (col 12, lines 36-47) and next filtering pixels not adjacent to the pixels of the boundary block (col. 18, lines 1-6)" However, the applicant respectfully points out that col 12, lines 36-47 does not involve any filtering steps whatsoever. Instead col 12, lines 36-47 simply teaches how to determine the boundary strength (Bs) for a block boundary 47 located between two neighboring blocks. Additionally, col 18, lines 1-6, only refers to setting the activity thresholds (ALPHA) for strong-mode filtering and also does not involve any filtering steps whatsoever. For these reasons, the sections quoted by the Examiner do not read on the features claimed in currently amended claim 1.

Secondly, Joch et al. actually teach two different filtering strategies: one for when the boundary strength Bs<4 (but greater than 0), and one for when boundary strength Bs=4. Concerning Bs<4, see col. 16 lines 48-50 stating, "in which the edges 47 with Bs<4 are filtered by computing the filtered samples P_0 and Q_0 based on the DELTA" The applicant notes that Joch et al. state in col 2, lines 59-62, "For each line-based filtering operation, unfiltered samples will be referred to with lower-case letters, and filtered samples with upper-case letters." Therefore, for Bs<4, Joch et al. teach in col 16, lines 56-59 how to generate the filtered samples P_0 and Q_0. That is, how to filter the unfiltered pixels p_0 and q_0, which are at the block boundary 47 in Figure 3a of Joch et al. Continuing,

Joch et al. then teach that pixels p_1 and q_1 are next filtered. For example see col 17, lines 4-8 showing how to generate the filtered sample P_1 and Q_1. The applicant notes that when filtering p_1 and q_1, there is not at least one pixel left unfiltered between the pixels around the block boundary (p_0 and q_0) and the pixels not adjacent to the pixels at the block boundary. In this way, for at least the cases where Bs<4, Joch et al. does not teach each and every limitation as claimed in currently amended claim 1 of the present invention.

For the cases where Bs=4, see col 17, line 58 stating, "For strong mode filtering where Bs=4…", Joch et al. teach either utilizing a 3-tap to filter "only a single pixel on that side of the boundary 47." (col 18, lines 1-2). Generation of the single filtered pixel P_0 is shown on col 18, lines 21-23 stating, "then filter only P0 using the 3-tap filter". Obviously for the 3-tap filter Joch does not filter both pixels at the block boundary and the pixels not adjacent to the pixels at the block boundary and therefore does not meet every feature claimed by currently amended claim 1 of the present invention.

On the other hand, when Bs=4 and the 5-tap filter is utilized for luminance, Joch et al. teach in col 18, lines 14-17 generating filtered pixels P_0, P_1, and P_2. However, the applicant notes that Joch et al. does not teach or suggest that when filtering P_2, P_1 should be left unfiltered between P_0 and P_2. Instead, Joch et al. simply teach filtering P_0, P_1, and P_2. Therefore, the applicant asserts that Joch et al. does not teach the claimed feature that "when filtering the pixels not adjacent to the pixels at the block boundary, there is at least one pixel left unfiltered between the pixels around the block boundary and the pixels not adjacent to the pixels at the block boundary", as is claimed in currently amended claim 1.

In summary, for each of the filtering modes taught by Joch et al., there is at least the claimed feature that "when filtering the pixels not adjacent to the pixels at the block

boundary, there is at least one pixel left unfiltered between the pixels around the block boundary and the pixels not adjacent to the pixels at the block boundary" that is not taught or suggested by Joch et al. For at least this reason that Joch et al. do not teach or suggest all the features of the present invention, the applicant asserts that currently amended claim 1 should be found allowable with respect to the cited reference of Joch et al. Claims 2-22 are dependent claims and should therefore be found allowable for at least the same reasons as base claim 1. Reconsideration of claims 1-22 is respectfully requested.

Claim 4 is rejected under 35 USC 103a as being unpatentable over Joch et al. (US 7,227,901) in view of Ameres et al. (US 7,027,654).

As previously mentioned, claim 4 is dependent upon base claim 1, which is believed allowable by the applicant for at least the above stated reasons. In this way, claim 4 should also be found allowable for the same reasons as base claim 1. Reconsideration of claim 4 is respectfully requested.

Claim 18 is rejected under 35 USC 103a as being unpatentable over Joch et al. (US 7,227,901) in view of Hsu et al. (US 2005/0013497).

As previously mentioned, claim 18 is dependent upon base claim 1, which is believed allowable by the applicant for at least the above stated reasons. In this way, claim 18 should also be found allowable for the same reasons as base claim 1. Reconsideration of claim 18 is respectfully requested.

Allowable Subject Matter – Claims 5-17 are objected to as being dependent upon a

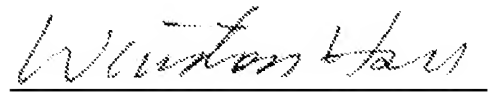
rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

The applicant thanks the Examiner for the indication of the allowable matter.

Conclusion:

Thus, all pending claims are submitted to be in condition for allowance with respect to the cited art for at least the reasons presented above. The Examiner is encouraged to telephone the undersigned if there are informalities that can be resolved in a phone conversation, or if the Examiner has any ideas or suggestions for further advancing the prosecution of this case.

Sincerely yours,



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